peak power of the pulse light, and if the set light amount is within a predetermined range, the light amount can be made to coincide with the set light amount.

REMARKS

Favorable consideration of this application, as presently amended, is respectfully requested.

The present preliminary amendment is submitted to place the above-identified application in more proper format under United States practice. By the present preliminary amendment the specification has been amended to correct for minor informalities. Original Claims 1-105 have been cancelled and new Claims 106-232 are presented in the present response. New Claims 106-232 are believed to be self-evident from the original disclosure, including original Claims 1-105, and thus are not deemed to raise any issues of new matter. The Abstract has been amended by the present response to be in more proper format under United States practice.

The present application is believed to be in condition for a full and thorough examination on the merits. An early and favorable consideration of the present application is hereby respectfully requested.

Respectfully submitted,

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IN THE SPECIFICATION

Page 32, lines 5-16, please delete the paragraph and replace it with the following paragraph:

With the fourth [exposure apparatus] light source unit according to the present invention, the temperature dependence data may further include data on temperature dependence of the center wavelength of the laser beam oscillated from the laser light source, and the first control unit may perform wavelength control of the laser light source together, when performing the absolute wavelength calibration. In such a case, the absolute wavelength calibration can be completed within a shorter period of time compared with the case when wavelength control of the laser beam is not performed. However, the wavelength of the laser beam does not necessarily have to be controlled, when performing the absolute wavelength calibration.

Page 138, line 18, through page 139, line 6, please delete the paragraph and replace it with the following paragraph:

Meanwhile, instead of driving the driving elements 74a, 74b, and 74c to correct the environmental change including the atmospheric change of the projection optical system PL referred to above by providing instructions to the image forming characteristics correction controller [44] 78, the main controller 50 may obtain the change in pressure, temperature, and humidity from the standard state based on the measurement values of the environmental sensor 77 at every predetermined timing since exposure on the first wafer has started, and

calculate the amount of wavelength change to almost cancel out the environmental change of the image forming characteristics of the projection optical system PL due to the change in pressure, temperature, and humidity. And, according to the amount of wavelength change calculated, the main controller 50 may positively change the oscillation wavelength of the laser light source 160A. The environmental sensor 77 may be a sensor to detect the atmosphere.

Page 161, line 24, through page 162, line 20, please delete the paragraph and replace it with the following paragraph:

The exposure apparatus in the embodiment above is made by assembling various subsystems including elements defined in the claims of the present application so as to keep a predetermined mechanical precision, electrical precision, and optical precision. In order to ensure these areas of precision, prior to and after the assembly, adjustment (for example, optical axis adjustment) is performed on various optical systems such as the illumination optical system 12 and the projection optical system PL to attain a predetermined optical precision, adjustment is performed on various mechanical systems to attain a predetermined mechanical precision, and adjustment is performed on various electrical systems to attain a predetermined electrical precision, respectively. Of these adjustments, since the light source for adjustment (testing) does not require high power when the properties of various optical systems are adjusted, with the light source 16 previously described, the arrangement can be simplified so as to use one or several fiber amplifiers [167] 168 as the light source. In such a case, light having almost the same wavelength as the wavelength of the exposure light can be easily generated, and can be used for adjustment. Therefore, an accurate adjustment can be made with a cost effective light source having a simple arrangement. In the case of

simplifying the arrangement so that only one fiber amplifier 168 is used, then the branch and delay portion 167 will not be required.

IN THE CLAIMS

Claims 1-105 (Canceled).

Claims 106-232 (New).

IN THE ABSTRACT

Please amend the Abstract as follows:

The light source unit [(16) comprises] includes a single wavelength oscillation light source [(160A)], a light generating portion [(160)] which has an optical modulator [(160C)] converting and emitting light from the light source into a pulse light, a light amplifying portion [(161)] made up of an optical fiber group [that] in which each fiber has a fiber amplifier to amplify the pulse light from the optical modulator, and a light amount controller [(16C)]. The light amount controller [(16C)] performs a step-by-step light amount control by individually turning on/off the light output of each fiber making up the optical fiber group, and a light amount control of controlling at least either of the frequency or the peak power of the emitted pulse light of the optical modulator. Accordingly, in addition to the step-by-step light amount control, fine adjustment of the light amount in between the steps becomes possible due to the control of at least either the frequency or the peak power of the pulse light, and if the set light amount is within a predetermined range, the light amount can be made to coincide with the set light amount.